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Salem, OR 97302

RE: DEQ review comments on Revised (Mar 17, 2015) draft Stormwater Assessment for Source Control Evaluation - ODOT Facilities in Portland Harbor – ECSI #5437

Dear Mr. Wirfs:

Thank you for your submittal of ODOT's revised draft Stormwater Assessment for Source Control Evaluation - ODOT Facilities in Portland Harbor, dated March 17, 2015, as well as for the on-going coordination on development and revision of ODOT's draft Source Control Measure Implementation Plan and draft Effectiveness Demonstration Plan. As discussed in our monthly meetings, DEQ anticipates receiving a final revision of the assessment report to address some key clarifications and corrections, but that a full rewrite is not expected. Instead, DEQ will accept the final revised report by including this comment letter in the official file with the report. While the revision will address some of the comments below, this letter documents DEQ's requested changes and clarifications, as well as elements with which DEQ does not concur. The City of Portland also provided comments on the ODOT Assessment for your consideration. DEQ concurs with many of the City's comments, which are integrated into DEQ's comments or added separately to be addressed in your revision. Below is a list of necessary clarifications and corrections, followed by section specific comments of disagreement. ODOT's final revision should address the key clarifications, as well as any other DEQ comments that you choose to.

<u>Key Clarifications and Corrections Needed</u>

1. The list of outfalls through which ODOT facilities contribute stormwater runoff remains unclear and has varied with each revision of the assessment. Please confirm a final list and integrate this the maps, tables and text of the assessment. Please include enough information in the text on each outfall for readers to understand ODOT ownership, runoff contribution, existing treatment measures in place, contribution percentage they treat and their functional effectiveness and planned source control actions related to each outfall. Specifcally:
    a. Add information on outfalls DL1, DL2 & DL3 (are these the same outfalls mentioned in the text of Section 3.5 as OF-22C-US1, OF-22C-DS-1 and OF22C-RS-1?), which were not mapped or discussed in previous revisions to the report. Rhone Poulenc work has identified only two outfalls to North Doane Lake, where these new outfall appear to discharge. Please include in the discussion the fact that the lake discharges to the Willamette River through OF 22C. Please provide data from your monitoring of these outfalls and include it in the assessment.
    b. Clarify that the outfall sometimes referred to as "Miller Creek" is the same as WR-153 and, if so be consistent in all report sections.
    c. Clarify why the following outfalls were omitted since the earlier revisions or reintegrate them back into the maps, tables and text.
        i. OF 15 – still discharges as a main CSO relief point

ii. Scuppers on Fremont Br – still discharge
iii. OFs 13 & 14 & 43 & 46 – previously on figures, but since removed from list
iv. OF 22B
v. OF 24 – no longer discharges

d. Rectify drainage areas described in Table 2-1 to total ODOT contribution drainage areas described in the text in Section 2. For example, Hwy 30 drainage area sections in Table 2-1 add up to ~57.5 acres, but the text indicates 85 acres of ODOT facilities drain from Hwy 30. Also, the St Johns bridge drains 3.3 acres in the table, but 4.1 acres in the text, and Hwy 26 shows 20.5 acres draining in the table, but 34 acres in the text. Conversely, I-405 drainage area is reported as ~50 acres in the table, but 41 acres in the text. Perhaps some of these differences are a function of total contribution vs. portion that receives treatment. As noted above, having a complete understand of both will be important for comprehension of ODOT's source control work.

2. As discussed and provided in draft in our March 31, 2015 meeting, DEQ evaluated ODOT's raw data and prepared a table of which outfalls, by georegion, had stormwater and stormwater solids samples with contaminants of interest measured in exceedance of Portland Harbor screening level values and rank order curves. The table also indicates when these exceeding contaminants are also found to be elevated in EPA's areas of potential concern off shore from the outfalls, proposed source control measures, areas of focus for DEQ/EPA on recontamination evaluation and sediment trap samples with high concentrations of contaminants in suspended solids. This helps target where source control measures are needed to be installed or improved, where additional data may be needed and where effectiveness demonstration activities should be focused. For reasons described below, DEQ did not concur with the assessment approach presented in ODOT's most recent revision. However, because the exceeding contaminants and areas to target roughly aligns with the list of exceedances and priority areas arrived at through ODOT's assessment process, DEQ and ODOT agreed to use the DEQ table as a basis for focused effort on the Source Control Measures Implementation Plan and Effectiveness Demonstration Plan. DEQ's table is attached at the end of this letter, but it will need to be revised further as additional outfalls and data are included, per comment 1, above.

3. Appendix B does not currently include a summary of past maintenance activities as indicated in the text of Sections 4.2.2.1 and 4.2.4.5. Rather the Appendix only includes a summary of past spills. Please correct.

4. More complete information is needed in Section 4.2.4.6 on the current status of vegetation and stormwater treatment function in the ditches along Highway 30 throughout the Portland Harbor study area uplands. DEQ has repeatedly requested ODOT investigate opportunities for potentially retrofitting or enhancing treatment capability as source control measures along the ODOT Highway 30 facility. An inventory and status of ditches will help to focus these efforts. This is important because source control measures are warranted in this area and potential opportunities presented in the drafts of the Source Control Measures Implementation Plan to date have been limited.

5. Section 3.4.2 includes information about non-ODOT stormwater treatment features that are unconfirmed and not within ODOT control. Relevance to ODOT discharge should be confirmed or this information removed.

6. The City of Portland provided comments on the ODOT Stormwater Assessment and indicated that more current GIS layers (2013 & 2013 updates) were provided to ODOT than the 2008 layers referenced in the report. Please make sure the most current information is used in revised maps, figures and text.

7. Per City of Portland comments #11through 14 and #17, please re-evaluate the drainage descriptions and contributions from ODOT facilities to outfalls 52, 11, 17, 22C and 22A, and adjust maps, tables and text accordingly.

Specific Comments

1. DEQ disagrees with ODOT's characterization of "continual compliance" with the MS-4 permit, as discussed in Section 4.1.1. An accounting of the 2009 Settlement Agreement with Northwest Environmental Defense Center on non-compliance with the MS-4 permit that resulted in $10 million dollars of stormwater improvement projects by ODOT is missing.

2. Please remove references in Section 4.1.2 to the ODOT/DEQ Memorandum of Understanding and Statewide Water Quality Management Plan. DEQ and ODOT management recently met, confirmed these products were not completed and agreed to remove reference to the MOU in future submittals.

3. DEQ notes that Section 4.1.3 is lacks information on ODOT's responsibilities as a Designated Management Agency for implementing Total Maximum Daily Loads and does not list any actions taken to address water quality impairments in Portland Harbor.

4. Section 4.2.4 indicates that ODOT's Blue Book governing maintenance action best practices is updated every five years, but it appears that 2009 was the last update.

5. Many of the subsections of Section 4.2.4 lack clarity on if, where, or how frequently the described practices are applied in Portland Harbor. Several also include planning or aspirational goals of implementation. DEQ cannot, therefore, confirm their application or effectiveness as source control measures.

6. Section 5 is titled "Identification of Contaminants of Interest," but does not present a list of contaminants on which to focus the assessment. Perhaps this section better serves as a subsection to the assessment section where contaminants of concern are identified.

7. DEQ does not support the approach to data assessment presented in Section 6. It is not well explained or justified and does not result in an effective analyais in comparison to DEQ's simplified evaluation of the raw data and geographic considerations. DEQ has the following specific comments on the assessment:

    a. The last paragraph of 6.1 indicates that LWG data were used in the assessment. The data is not included in any of the tables or qualified further, so it is not clear what LWG data was included and how was it used.
    b. The purpose and method of combining grab and composite samples and what the "representativeness" determinations mean are not clear. This seems to serve to further narrow the already limited dataset (stormwater collected at 14 of 32 outfalls + scuppers on Fremont Bridge). It is generally inappropriate to combine samples over different areas and from different events.
    c. Chemical categorization and assigning of levels of concern at the outset of the assessment is an unusual and unnecessary step. Given the limitations of the dataset (robust continuous sampling at 3 points and single event grab samples at 12 more), the statistical approach seems questionable and the overall value of this step to the source identification and control objectives is unclear.
    d. It is unclear how the number, percent, min/max values, geomeans and ratios that appear in Tables C1 and C3 were used or how the geomeans were calculated, because there is not any direct discussion or documentation of these in the report. The use of geomeans, while required in the NPDES 1200Z permit for determining benchmark exceedances, is not used in Portland Harbor source control and may compound uncertainty in data screening. DEQ's stormwater guidance protocols account for variability in stormwater sampling. Importantly, mean or average values are inappropriate for comparison to DEQ's rank-order curves, which are comprised of hundreds of raw data points measured at individual sites within Portland Harbor uplands. Except for the continuous monitoring data collected at the three ODOT-owned outfalls, application of normalizing techniques is inappropriate. Calculating geomeans or ratios for single event grab samples is inappropriate.

e. While a discussion of antecedent dry period and rainfall is included in the report, the timing of grab samples according to DEQ guidance protocols is not discussed and no conclusions are offered as to how these deficiencies influenced data interpretation. Inability to meet protocols typically results in less weight being applied in interpreting the data.

As always, please feel free to contact me with your questions about this letter. Please plan to prepare your revised report for submittal within 30 days of this letter.

Sincerely,

L. Alexandra Liverman
Portland Harbor Stormwater Coordinator

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